

What is claimed is:

1. A vehicle frame structure for a motorcycle, which comprises a head block including a head tube, a main frame forked leftwards and rightwards from the head block to form a pair of left and right main frame half portions extending rearwardly thereof, and swing arm brackets extending downwardly from rear ends of the main frame half portions;

wherein an inner frame portion of the main frame positioned inside the vehicle frame structure and the swing arm brackets in their entirety or respective inner portions of the swing arm brackets are integrally formed by an inner member prepared from a metal casting, and

wherein at least an outer frame portion of the main frame is formed by an outer member prepared from a sheet metal.

2. The vehicle frame structure for the motorcycle as claimed in Claim 1, wherein a guide passage for introduction of an air to an air cleaner of an engine is formed inside the main frame.

3. The vehicle frame structure for the motorcycle as claimed in Claim 2, wherein the air cleaner is positioned within a space delimited between the pair of the left and right main frame half portions of the main frame.

4. The vehicle frame structure for the motorcycle as claimed in Claim 2, wherein the inner and outer frame portions of the main frame are configured to represent a generally U-shape, with their openings jointed with each other to define the guide passage therein.

5. The vehicle frame structure for the motorcycle as claimed in Claim 2, wherein a flashing plate for deflecting the flow of the air to separate water contained in the air is disposed within the guide passage.

6. The vehicle frame structure for the motorcycle as claimed in Claim 2, wherein the head block is formed with an intake passage through which the air is sucked and supplied to the guide passage.

7. The vehicle frame structure for the motorcycle as claimed in Claim 6, wherein the head block is a metal casting including an air intake duct that defines the intake passage and the head tube, and is welded to the main frame.
8. The vehicle frame structure for the motorcycle as claimed in Claim 1, wherein the inner member is integrally cast with a cross member for connecting the pair of the left and right main frame half portions with each other.
9. The vehicle frame structure for the motorcycle as claimed in Claim 1, wherein the inner member is integrally cast with damping ribs.